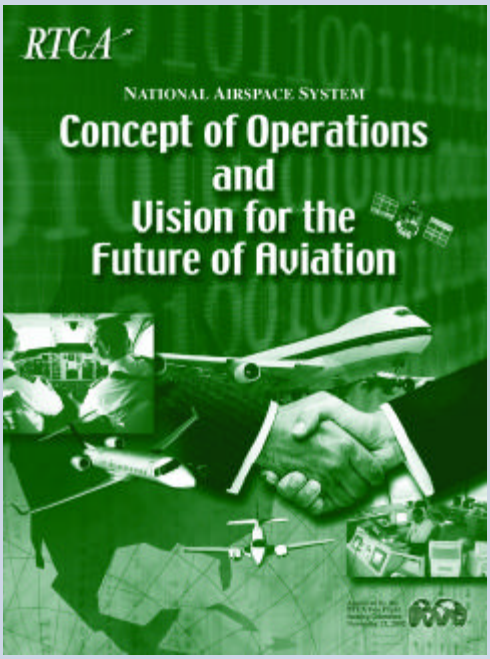


RTCA's concept of operations is the OEP foundation.

VISION

Guiding Vision for the OEP

In the future, the NAS will become a technology-intensive, but human-centric information system that supports reliable real-time decision making. As the vision evolves, the OEP will detail the tactical, community consensus commitments that will implement the system. Currently, the conceptual foundation for this vision is contained in the Future Concept of Operations, a government-industry strategic look at the NAS published by RTCA.

Technological advances and procedural improvements, driven by use of satellite navigation tools and procedures like RNP, will permit flexible airspace designs, more routing options, an increase in the number of flights that can safely operate in a given airspace and an increase in access to airspace. This allows a shift from standard operations tied to the performance of ground-based systems to operations tailored for aircraft system performance.

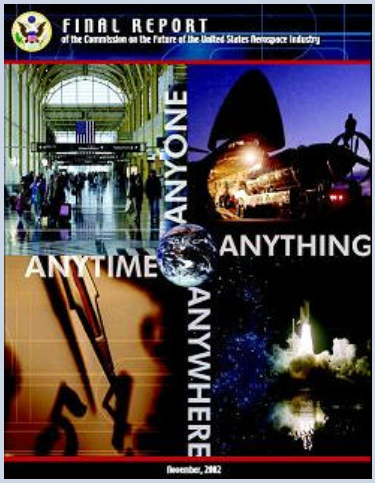
Airports will have new capabilities as well. Along with new runways at some of the busiest locations, more airports will be equipped to operate in a wider range of weather conditions and increase use of parallel runway operations, reducing the need for flight restrictions. All this will occur with the introduction of new and expanded operations: differences in airports, demographics, changes in fleet mix including new types of aircraft (e.g., unmanned vehicles); and wider use of general aviation, regional, and business aircraft.

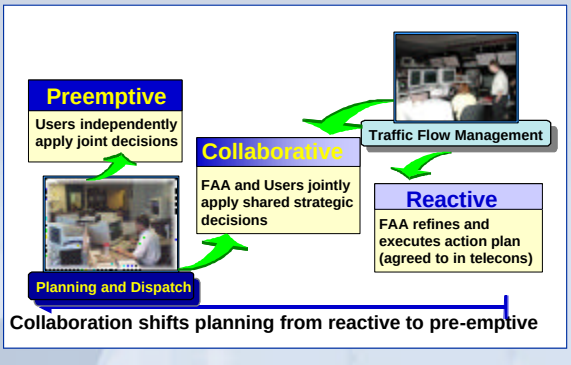
Shared and secure information is the hallmark of the future. New technologies now in testing, others in the research stage, and some not yet imagined will enable more precise information in the air and on the ground. Increased use of satellite technology and digital data links, along with improvements in automation, will increase reliability and flexibility throughout the airspace system. This enhanced information and communications environment will not only improve efficiency, but support national defense requirements as well. Pilots, controllers and others will see the same information by way of integrated networks, leading to more complete and real-time sharing of situational awareness. As we increase the variety and utility of information available to pilots and controllers, passengers will benefit as well. The public will have access to much of the same information that the FAA and the airlines have on weather, air traffic, and airport conditions throughout the aviation system.

Shared information will improve daily collaborative decision-making between the FAA and airspace system users such as the airlines, general aviation, and military. Collaborative decision making has already eliminated thousands of hours of delays, improving efficiency and effectiveness. State-of-the-art decision support tools will systematically implement the rules of collaborative decision making and improve efficiency in all phases of flight.

In accomplishing all this, we will continue to strive for international consistency of procedures and systems to achieve what is called global harmonization.

The OEP is consistent with recent FAA acquisitions and policies, including: the Standard Terminal Automation Replacement System, En Route Systems Modernization programs, Advanced Technologies and Oceanic Procedures, and RNP criteria. These systems and procedures speed the introduction of new decision-support applications, improve the reliability of the operating systems, and allow the FAA and the user community to take full advantage of modern avionics. The OEP together with the infrastructure and safety NAS modernization efforts will conform to the priorities and support the national security mission.





Expanding opportunities for collaborative decision making

Looking Forward to Version 6.0

OEP Version 5.0 reflects the first complete post-September 11, 2001 look at the NAS and the adjustments made to the OEP. Though current economic conditions caused us to delay some initiatives, the OEP continues to reflect the maturing of procedures and new technologies. Specific implementation delays stem from financial difficulties and center around local uncertainty in a small number of airport runway programs, along with uncertainty about the timing of the airlines ability to equip their fleet to support OEP initiatives. However, we expect that air traffic, measured in terms of operations, will return to its pre-September 11th growth pattern between 2005 and 2007. As a result, we cannot deviate from our commitment to modernize the NAS and increase its capacity and efficiency.

With Version 6.0, the OEP will continue to respond to the changing operating environment and the financial condition of system users, as well as FAA funding uncertainties. This may ultimately require additional prioritization of activities.

As always, safety is of primary importance, and, in OEP Version 6.0, we will clearly describe the links between the OEP and the FAA's program for ensuring safety in the NAS. We will also describe the infrastructure initiatives needed to realize the OEP, and provide a clear path that ensures the timely availability of infrastructure components.

The FAA will continue to improve its efforts to integrate lines of business and decision making, and to become more performance driven. Schedules and data bases have been integrated to better manage resource contention generated by multiple commitments. A metrics plan has been added to Version 5.0 that details the measures that will be used to evaluate and understand the overall success of the OEP.

We also have laid the foundation for increased review and discussion of research that has the potential to provide capacity- and efficiency-enhancing solutions. Through the work of several groups across the aviation community, we will work to ensure that research assets are properly focused on solutions needed for the expansion of NAS capacity and improvement in NAS efficiency.

Finally, through renewal of our close collaboration with RTCA, we will work to improve the community's process for reviewing and commenting on OEP plans and commitments. Through our continued collaboration with industry, we will evolve the NAS in sensible and feasible ways to meet the needs of the aviation community and to achieve our mutual vision for aviation.